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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/576,660

04/21/2006

Kazuhiro Nojima

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EXAMINER

CONNELLY CUSHWA, MICHELLE R

ART UNIT

PAPER NUMBER

2874

NOTIFICATION DATE

DELIVERY MODE

02/20/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/576,660	Applicant(s) NOJIMA ET AL.	
	Examiner MICHELLE R. CONNELLY CUSHWA	Art Unit 2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7,9 and 10 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>4/21/06</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Information Disclosure Statement

The prior art documents submitted by applicant in the Information Disclosure Statement filed on April 21, 2006, have all been considered and made of record, except for those documents lined through (note the attached copy of form PTO-1449). Copies of the lined through documents have not been provided by Applicant.

Drawings

Eleven (11) sheets of formal drawings were filed on April 21, 2006 and have been accepted by the Examiner.

Specification

The abstract of the disclosure is objected to because the abstract should consist of only one paragraph. Correction is required. See MPEP § 608.01(b).

The disclosure is objected to because of the following informalities: On page 13, line 24, "12" should be changed to -15--.

Appropriate correction is required.

Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakanishi et al. (US 2003/0123819 A1).

Regarding claim 1; Nakanishi et al. discloses an optical transceiver module comprising:

- an approximately box-shaped package (the package is comprises of upper and lower cases, 3 and 2, respectively), having a transceiver chamber inside;
- first and second metal plates (22 and 10), provided separately and independently of each other in the transceiver chamber of the package (see paragraphs 66, 122, 125 and 128) for the purpose of reducing crosstalk;
- a first substrate (8), provided on the second metal plate, the first substrate mounting a light emitting device (LD);
- a second substrate (9), provided on the second metal plate, the second substrate mounting a photodetector (PD);
- an optical waveguide (5), optically coupled to the light emitting device (LD) and the photodetector (PD);
- a plurality of leads (20 and 45) provided in the package, the leads providing electric connection between each electrode of the light emitting device and the photodetector and the exterior of the package.

Regarding claim 2; the upper and lower cases (3 and 2) of the package are formed of a resin (see paragraphs 107 and 113).

Regarding claims 3 and 6; a capacitor is provided between the second metal plate and the cathode terminal of the photodetector (see Figure 8), the capacitor electrically connecting the second metal plate and the cathode terminal of the photodetector, and a preamplifier is mounted on the second metal plate to establish electrical connection between the anode terminal of the photodetector and the input terminal of the preamplifier and between the output terminal of the preamplifier and any one of the leads (see Figure 8).

Regarding claim 5; the first and second metal plates are connected to a ground external to the package via leads.

Regarding claim 7; the terms "floor" and "bottom surface" are subjective, as any side of an optical package may be considered a floor or bottom surface depending on the orientation of the optical package. The package disclosed by Nakanishi et al. has a through hole that extends across a side/floor surface to an outside/bottom surface of the package and that leads extend through to which the either of the first or second metal plates are electrically conducted to the outside/bottom surface of the package through the holes.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakanishi et al. (US 2003/0123819 A1).

Regarding claim 4; it would have been obvious to one of ordinary skill in the art at the time of the invention to have the specific resistance value of the first substrate mounting the light emitting devices be 1 kΩ·cm or above, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art (*In re Aller*, 105 USPQ 233) and that discovering an optimum value of a result effective variable involves only routine skill in the art (*In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980)).

Regarding claim 9; the package disclosed by Nakanishi et al. is enclosed in a resin casing (48; see Figure 4). However, one of ordinary skill in the art would have found it obvious to provide a lid to enclose the package in place of the resin enclosure in order to allow the contents on the inside of the package to be more easily accessed in the event that a repair is needed while still providing the environmental protection of an outer casing in the form of a lid. Furthermore, the selection of a suitable material is within the level of ordinary skill in the art and ceramics are well known and commonly used in the art.

Regarding claim 10; a substrate mounting the package of the optical transceiver module, which will have a printed circuit pattern to which the leads connect, inherently has an area lacking a conduction pattern in its area on the top surface thereof where the bottom surface of the package is in contact in order to provide the necessary electrical paths patterned to connect to the disclosed leads.

Allowable Subject Matter

Claims 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art does not disclose or reasonably suggest an optical transceiver, as defined in claim 8, wherein a boundary part where the first and second metal plate adjacently surface each other has a shape of cranks supplementing each other or a curve.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Kuhara et al. (US 2003/0152338 A1); Nasu et al. (US 2003/0044132 A1); and Kuhara et al. (US 7,018,110 B2).

Any inquiry concerning the merits of this communication should be directed to Examiner Michelle R. Connelly-Cushwa at telephone number (571) 272-2345. The examiner can normally be reached 9:00 AM to 7:00 PM, Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney B. Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general or clerical nature should be directed to the Technology Center 2800 receptionist at telephone number (571) 272-1562.

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/Michelle R. Connelly-Cushwa/
Primary Examiner, Art Unit 2874
February 3, 2008